Dunedin 3 Waters Strategy

Kitchener Street Integrated Catchment Management Plan

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KITCHENER STREET INTEGRATED CATCHMENT MANAGEMENT PLAN

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Figure 4-1

Kitchener Street Catchment Location

DISCIPLINE
Stormwater

Drawn: KC
Checked: HES
Approved: SDH

Status: Final

Plot Date: Sep 2011

Map No: Revision: -

Job No: 4217327

Discipline: Stormwater

0 0.8 0.4 Kilometres

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Figure 4-2
Kitchener Street Catchment Contour Map

Legend

- Kitchener Street Catchment Boundary
- Contour (m)
  - < 20
  - 20 - 50
  - 51 - 80
  - 81 - 110
  - > 110

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Discipline
Stormwater

Plot Date: Sep 2011
Status: Final
Scale: 1:7,500
Map No: Figure 4-2
Revision:

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Kitchener Street Catchment Geology Map

Legend

- Kitchener Street Catchment Boundary
- Mdc
- Q1al
- Q1an
- Q1b
- Q5a
- Q5b
- Q2af
- Md3e
- Md2e
- Md1e
- Mo
- Water
- Roads

Kitchener Street INTEGRATED CATCHMENT MANAGEMENT PLAN

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Figure 4-3
Kitchener Street Catchment Geology Map
Legend
- Kitchener Street Catchment Boundary
- Land Parcels

District Plan Zones

Subzone
- CENTRAL ACTIVITY AREA
- CAMPUS
- INDUSTRIAL 1
- INDUSTRIAL 2
- LARGE SCALE RETAIL ZONE
- LOCAL ACTIVITY ZONE 1
- LOCAL ACTIVITY ZONE 2
- PORT 1
- PORT 2
- RESIDENTIAL 1
- RESIDENTIAL 2
- RESIDENTIAL 3
- RESIDENTIAL 4
- RESIDENTIAL 5
- RESIDENTIAL 6
- RESIDENTIAL 6A
- RURAL RESIDENTIAL
- RURAL
- SPECIAL DEVELOPMENT

KITCHENER STREET INTEGRATED CATCHMENT MANAGEMENT PLAN
Figure 4-4
Kitchener Street Catchment Land Use Zones

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Figure 4-5

Kitchener Street Catchment Archaeological and Heritage Sites

Legend
- Kitchener Street Catchment Boundary
- DP Heritage Structure
- DP Archaeological Sites
- DP Heritage Facade
- DP Townscape and Heritage Precinct
- Land Parcels

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Contaminated Land Sites

Figure 4-7

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KITCHENER ST INTEGRATED CATCHMENT MANAGEMENT PLAN

Discipline: Stormwater

Legend
- Catchment Boundary
- Stormwater Network
- Road
- Parcel Boundaries
- Contaminated Site
- Landfill
- Reclamation
- Reclaimed Land
- ORC Contaminated Sites
KITCHENER STREET INTEGRATED CATCHMENT MANAGEMENT PLAN
Figure 4-8
Kitchener Street Catchment Current Imperviousness

Legend
- Kitchener Street Catchment Boundary
  - Land Parcels
  - Current Land Use Imperviousness
    - Impervious (%)
    - 0.0 - 20.0
    - 20.1 - 40.0
    - 40.1 - 60.0
    - 60.1 - 80.0
    - 80.1 - 100.0

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Figure 4-12
Kitchener Street Catchment Stormwater Network Criticality

Legend
Stormwater Criticality
Total Criticality Score
1 2 3
Social Minor Location
Social Major Location
Economic Minor Location
Economic Major Location
Environmental Major Location
Cultural Location
Kitchener Street Catchment Boundary

0 0.1 0.2 0.4 Kilometres
Figure 4-13

Kitchener Street Catchment Reported Stormwater Flooding
KITCHENER STREET INTEGRATED CATCHMENT MANAGEMENT PLAN
Figure 4-14
Kitchener Street Catchment Reported Wastewater Flooding

Legend

Exact Location Unknown (Road Name Only)
Problem Description

- Foul Drain - Boundary Trap Overflow
- Foul Sewer - Blocked
- Foul Sewer - Broken
- Foul Sewer - Collapsed
- Foul Sewer - Complaint - Service Other
- Foul Sewer - Drain Gully Trap Overflow
- Foul Sewer - Overflowing
- Foul Sewer - Problem Other
- Foul Sewer Manhole - Overflowing
- Foul Sewer Pump Station - Overflowing

Exact Location Known (Full Address)
Problem Description

- Foul Drain - Boundary Trap Overflow
- Foul Sewer - Blocked
- Foul Sewer - Broken
- Foul Sewer - Collapsed
- Foul Sewer - Complaint - Service Other
- Foul Sewer - Drain Gully Trap Overflow
- Foul Sewer - Overflowing
- Foul Sewer - Problem Other
- Foul Sewer Manhole - Overflowing
- Foul Sewer Pump Station - Overflowing

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Figure 4-15

Kitchener Street Catchment Three Waters Networks

Legend
- Kitchener Street Catchment Stormwater Outfalls
- Stormwater Pipe
- Water Supply
- Water Mains: 300 plus
- Wastewater
- Kitchener Street Catchment Boundary

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Figure 7-1
Kitchener Street Catchment Model Extent

Legend
- Kitchener Street Catchment Outfall
- Modelled Pipe
- Pruned Pipe or Channel (not modelled)
- Kitchener Street Catchment Boundary
- Overlap with Mason Street Catchment

Legend
- Kitchener Street Catchment Outfall
- Modelled Pipe
- Pruned Pipe or Channel (not modelled)
- Kitchener Street Catchment Boundary
- Overlap with Mason Street Catchment
DISCLAIMER: Whilst we have attempted to produce mapping that is as reliable as possible, Dunedin City Council and its consultants (Opus / URS) accept no responsibility for the accuracy of the mapping, nor any decisions made based on it. The mapping was prepared for strategic planning purposes only. It indicates the predicted likelihood of flooding from stormwater reticulation for defined areas, based on the best available information at the time of preparation and is subject to uncertainty. The mapping is not sufficiently detailed to account for individual properties, as individual properties may be subject to local factors not considered in the modelling.

Legend
- Kitchener Street Catchment Boundary
- Land Parcels
- Stormwater Network
- Kitchener Street Catchment Outfalls

Flood Depth - Worst Case 1 in 100 yr ARI Rainfall
- 50 - 100 mm
- 100 - 200 mm
- 200 - 300 mm
- > 300 mm

High variability of stormwater quality results
Limited confidence in the knowledge of effects on the Otago Harbour environment
Ongoing stormwater discharge
Potential wastewater contamination
Low level of service in lower catchment
Nuisance flooding
Deep flooding
Network maintenance
Flood hazard

KITCHENER STREET INTEGRATED CATCHMENT MANAGEMENT PLAN
Figure 9-1
Kitchener Street Catchment Issues

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